

MBR1035 - MBR1060

Features

- Low power loss, high efficiency.
- High surge capacity.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current capacity, low forward voltage drop.
- Guard ring for over voltage protection.





TO-220AC

Schottky Rectifiers

Absolute Maximum Ratings*

 $T_{\Delta} = 25$ °C unless otherwise noted

Symbol	Parameter		Value			
		1035	1045	1050	1060	1
V_{RRM}	Maximum Repetitive Reverse Voltage	35	45	50	60	V
I _{F(AV)}	Average Rectified Forward Current	10		Α		
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		150			
T _{stg}	Storage Temperature Range		-65 to +175			
TJ	Operating Junction Temperature		-65 to +150			

^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P _D	Power Dissipation	2.0	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	60	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	2.0	°C/W

Electrical Characteristics $T_A = 25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter		Device			
		1035	1045	1050	1060	
V _F	Forward Voltage $I_{F=}$ 10 A, T_{C} = 25°C $I_{F=}$ 10 A, T_{C} = 125°C $I_{F=}$ 20 A, T_{C} = 25°C $I_{F=}$ 20 A, T_{C} = 125°C	0.57 0.84 0.72		0.80 0.70 0.95 0.85		V V V
I _R	Reverse Current @ rated V_R $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$	0.1 15		mA mA		
I _{RRM}	Peak Repetitive Reverse Surge Current 2.0 us Pulse Width, f = 1.0 KHz	1.	.0	0	.5	А

Schottky Rectifier

(continued)

Typical Characteristics

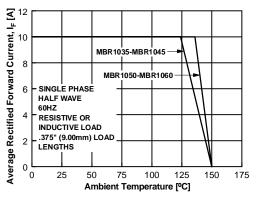


Figure 1. Forward Current Derating Curve

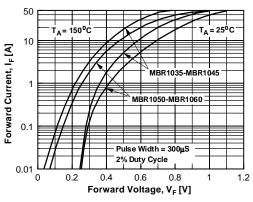


Figure 3. Forward Voltage Characteristics

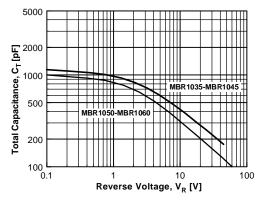


Figure 5. Total Capacitance

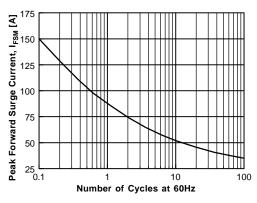


Figure 2. Non-Repetitive Surge Current

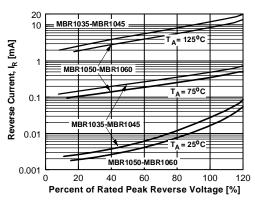


Figure 4. Reverse Current vs Reverse Voltage

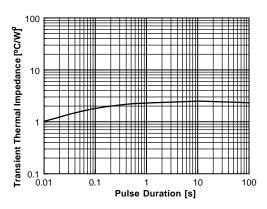


Figure 6. Thermal Impedance Characteristics

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